The Research Behind Building My SRM GPA Calculator

Introduction

Building a GPA calculator may sound like a simple programming project. At first I believed the same. I expected most of my time would be spent writing code and testing calculations.

Very soon I discovered that coding was only a small part of the project.

The real challenge was finding and organizing accurate academic data.

Understanding the Problem

Many GPA calculators ask students to enter every subject name and credit value manually. While this approach works it also takes time and increases the chance of mistakes.

I wanted students to avoid that process completely.

My goal was to build a calculator that already knew the subjects and credits for each semester. Students would only need to select their course semester and grades.

To make this possible I first needed a complete and reliable academic database.

Collecting Official Data

The data collection stage became the most time consuming part of the project.

I worked with the official SRM 2021 regulation curriculum documents because they contain the academic structure followed by students.

Although these documents provide complete information they are written for academic reference rather than software development.

Information is spread across many pages.

Each course contains multiple semesters.

Every semester has different subjects.

Each subject has its own credit value.

Finding all of this information required careful reading instead of simple copying.

Organizing the Information

Collecting the data was only the beginning.

The next challenge was turning hundreds of scattered entries into structured information that a calculator could understand.

Every subject had to be placed under the correct course.

Every semester had to contain the correct subjects.

Every credit value had to match the official curriculum.

Even a single incorrect credit could produce an incorrect GPA.

Because of this every section was checked several times before becoming part of the calculator.

From Documents to Automation

After organizing the data I converted it into a structured format that could be used by the calculator.

This made it possible for the website to automatically load subjects and credits after a student selects a course and semester.

Students no longer need to search through documents or type information manually.

The calculator prepares everything automatically before performing the GPA calculation.

After spending days organizing official academic data I wanted students to experience the result instead of reading about it. You can explore the calculator on **SRMGPACalculator.org** and see how it removes manual work from GPA calculation by automatically loading subjects and credits for your selected course and semester.

Why This Approach Matters

The biggest advantage of this system is simplicity.

Students spend less time entering information.

The chance of manual errors becomes much lower.

The overall experience becomes faster and easier.

Instead of focusing on data entry students can focus on understanding their academic performance.

Lessons From the Project

This project changed my understanding of software development.

A useful product is not built by writing code alone.

It requires understanding the real problem.

Researching reliable information.

Organizing complex data.

Testing every detail.

Only after completing these steps does coding become meaningful.

Conclusion

Looking back, the most valuable part of this project was not building the calculator itself.

It was creating a reliable academic database that works behind the scenes.

The hours spent reading official documents organizing subjects and verifying credits allow students to calculate their GPA with only a few clicks.

That hidden work is what makes the calculator simple to use.

Sometimes the best software is not the one with the most features.

It is the one that quietly removes work users should never have to do themselves.